

Quinolone Resistance Among *Shigella*: NARMS 1999-2001

Baker N, Nelson J, Joyce K, Gay K, Angulo F, and the NARMS Working Group

An estimated 450,000 *Shigella* infections occur in the United States each year. Fluoroquinolones (e.g., ciprofloxacin) are often used in the treatment of shigellosis. Isolates resistant to nalidixic acid, an elementary quinolone, may also have decreased susceptibility to ciprofloxacin. To our knowledge, ciprofloxacin-resistant *Shigella* has not been previously reported in the United States.

Between 1999 and 2001, state and local health departments participating in the National Antimicrobial Resistance Monitoring System (NARMS) forwarded every tenth *Shigella* isolate to CDC for susceptibility testing to ciprofloxacin and nalidixic acid by broth microdilution.

Seventeen sites submitted 1,170 *Shigella* isolates. Of these, 881 (75%) were *S. sonnei*, 253 (22%) were *S. flexneri*, and 30 (3%) were other *Shigella* species. Seventeen (1%) isolates (11 *S. sonnei*, 4 *S. flexneri*, and 2 *S. Boydii*) were nalidixic-acid resistant (MIC >32µg/ml); one of the *S. flexneri* isolates, obtained in 2001 from a child who had recent travel history to China, was ciprofloxacin-resistant (MIC = 4µg/ml).

Although quinolone-resistance is rare among domestic *Shigella* isolates, the first recognition of ciprofloxacin resistance warrants further study to determine association with foreign travel.